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Total Number of Pages in This Submission

Application Number	09/800,435
Filing Date	March 5, 2001
First Named Inventor	Stephen R. Quake
Art Unit	1631
Examiner Name	Channing Mahatan
Attorney Docket Number	20174C-012300US

Total Number of Pages in This Submission

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ENCLOSURES (Check all that apply)

<input type="checkbox"/> Fee Transmittal Form	<input type="checkbox"/> Drawing(s)	<input type="checkbox"/> After Allowance Communication to TC
<input type="checkbox"/> <input type="checkbox"/> Fee Attached	<input type="checkbox"/> Licensing-related Papers	<input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences
<input type="checkbox"/> Amendment/Reply	<input type="checkbox"/> Petition	<input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief)
<input type="checkbox"/> <input type="checkbox"/> After Final	<input type="checkbox"/> Petition to Convert to a Provisional Application	<input type="checkbox"/> Proprietary Information
<input type="checkbox"/> <input type="checkbox"/> Affidavits/declaration(s)	<input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address	<input type="checkbox"/> Status Letter
<input type="checkbox"/> Extension of Time Request	<input type="checkbox"/> Terminal Disclaimer	<input checked="" type="checkbox"/> Other Enclosure(s) (please identify below):
<input type="checkbox"/> Express Abandonment Request	<input type="checkbox"/> Request for Refund	SB/08
<input checked="" type="checkbox"/> Information Disclosure Statement	<input type="checkbox"/> CD, Number of CD(s) _____	147 References
<input type="checkbox"/> Certified Copy of Priority Document(s)	<input type="checkbox"/> Remarks	Return Postcard
<input type="checkbox"/> Reply to Missing Parts/ Incomplete Application	The Commissioner is authorized to charge any additional fees to Deposit Account 20-1430.	
<input type="checkbox"/> <input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53		
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SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	Townsend and Townsend and Crew LLP		
Signature			
Printed name	Patrick M. Boucher		
Date	February 9, 2006	Reg. No.	44,037

CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date shown below.

Signature			
Typed or printed name	Janet L. Newmaker	Date	February 9, 2006

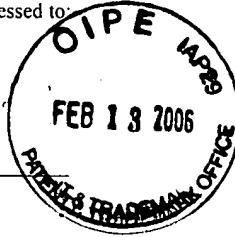
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P.O. Box 1450
Alexandria, VA 22313-1450

On February 9, 2006

TOWNSEND and TOWNSEND and CREW LLP

By: Janet L. Newmaker
Janet L. Newmaker



PATENT
Attorney Docket No.: 20174C-012300US
Client Reference Nos.: CIT 3176 and
C112.210.US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Stephen R. Quake et al.

Application No.: 09/800,435

Filed: March 5, 2001

For: Combinatorial Array For Nucleic Acid Analysis

Customer No.: 20350

Confirmation No.: 2542

Examiner: Channing Mahatan

Art Unit: 1631

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR §§ 1.97 AND 1.98

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

The references cited on attached form PTO/SB/08A and PTO/SB/08B are being called to the attention of the Examiner. Copies of the references (in compliance with the requirements of 37 CFR §1.98(a)(2)) are enclosed.

It is respectfully requested that the cited references be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

As provided for by 37 CFR §1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and no representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

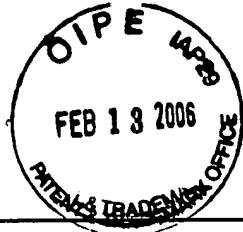
Applicants believe that no fee is required for submission of this statement. If a fee is required, however, the Commissioner is authorized to deduct such fee from the undersigned's Deposit Account No. 20-1430. Please deduct any additional fees from, or credit any overpayment to, the above-noted Deposit Account.

Respectfully submitted,


Patrick M. Boucher
Reg. No. 44,037

Date: February 9, 2006

TOWNSEND and TOWNSEND and CREW LLP
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San Francisco, CA 94111-3834
Tel: 303-571-4000
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PMB/jln
60696953 v1



Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

				<i>Complete if Known</i>	
Application Number				09/800,435	
Filing Date				March 5, 2001	
First Named Inventor				Stephen R. Quake	
Art Unit				1631	
Examiner Name				Channing Mahatan	
Sheet	1	of	15	Attorney Docket Number	20174C-012300US

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number Number Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	A1	US-2,656,508	10-20-1953	Coulter	
	A2	US-3,560,754	02-02-1971	Kamentsky	
	A3	US-3,570,515	03-16-1971	Kinner	
	A4	US-3,747,628	07-24-1973	Holster et al.	
	A5	US-4,046,159	09-06-1977	Pegourie	
	A6	US-4,119,368	10-10-1978	Yamakazi	
	A7	US-4,153,855	05-08-1979	Feingold	
	A8	US-4,245,673	01-20-1981	Bouteille et al.	
	A9	US-4,434,704	03-06-1984	Surjaatmadja	
	A10	US-4,581,624	04-08-1986	O'Connor	
	A11	US-4,585,209	04-29-1986	Aine et al.	
	A12	US-4,675,300	06-23-1987	Zare et al.	
	A13	US-4,786,165	11-22-1988	Yamamoto et al.	
	A14	US-4,898,582	02-06-1990	Faste	
	A15	US-4,908,112	03-13-1990	Pace	
	A16	US-4,963,498	10-16-1990	Hillman et al.	
	A17	US-4,992,312	02-12-1991	Frisch	
	A18	US-5,032,381	07-16-1991	Bronstein et al.	
	A19	US-5,085,562	02-04-1992	Van Lintel	
	A20	US-5,088,515	02-18-1992	Kamen	
	A21	US-5,096,388	03-17-1992	Weinberg	
	A22	US-5,126,022	06-30-1992	Soane et al.	
	A23	US-5,126,115	06-30-1992	Fujita et al.	
	A24	US-5,140,161	08-18-1992	Hillman et al.	

Examiner Signature		Date Considered
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² Kind Codes of U.S. Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Substitute for form 1449A/PTO				<i>Complete if Known</i>	
				Application Number	09/800,435
				Filing Date	March 5, 2001
				First Named Inventor	Stephen R. Quake
				Art Unit	1631
				Examiner Name	Channing Mahatan
Sheet	2	of	15	Attorney Docket Number	20174C-012300US

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number Number Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	A25	US-5,164,558	11-17-1992	Huff et al.	
	A26	US-5,164,598	11-17-1992	Hillman et al.	
	A27	US-5,171,132	12-15-1992	Miyazaki	
	A28	US-5,224,843	07-06-1993	Van Lintel	
	A29	US-5,259,737	11-09-1993	Kamisuki et al.	
	A30	US-5,265,327	11-30-1993	Faris et al.	
	A31	US-5,271,724	12-21-1993	van Lintel	
	A32	US-5,290,240	03-01-1994	Horres, Jr.	
	A33	US-5,336,062	08-09-1994	Richter	
	A34	US-5,346,372	09-13-1994	Naruse et al.	
	A35	US-5,375,979	12-27-1994	Trah	
	A36	US-5,376,252	12-27-1994	Ekstrom	
	A37	US-5,400,741	03-28-1995	DeTitta et al.	
	A38	US-5,423,287	06-13-1995	Usami et al.	
	A39	US-5,434,049	07-18-1995	Okuno et al.	
	A40	US-5,452,878	09-26-1995	Gravesen et al.	
	A41	US-5,486,335	01-23-1996	Wilding et al.	
	A42	US-5,498,392	03-12-1996	Wilding et al.	
	A43	US-5,500,071	03-19-1996	Kaltenbach et al.	
	A44	US-5,512,131	04-30-1996	Kumar et al.	
	A45	US-5,529,465	06-25-1996	Zengerle et al.	
	A46	US-5,558,998	09-24-1996	Hammond et al.	
	A47	US-5,580,523	12-03-1996	Bard	
	A48	US-5,589,136	12-31-1996	Northrup et al.	

Examiner Signature		Date Considered
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Substitute for form 1449A/PTO				Complete if Known	
				Application Number	09/800,435
				Filing Date	March 5, 2001
				First Named Inventor	Stephen R. Quake
				Art Unit	1631
				Examiner Name	Channing Mahatan
Sheet	3	of	15	Attorney Docket Number	20174C-012300US

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number Number Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	A49	US-5,593,130	01-14-1997	Hansson et al.	
	A50	US-5,632,876	05-27-1997	Zanzucchi et al.	
	A51	US-5,641,400	06-24-1997	Kaltenbach et al.	
	A52	US-5,642,015	06-24-1997	Whitehead et al.	
	A53	US-5,659,171	08-19-1997	Young et al.	
	A54	US-5,660,370	08-26-1997	Webster	
	A55	US-5,661,222	08-26-1997	Hare	
	A56	US-5,681,024	10-28-1997	Lisec et al.	
	A57	US-5,702,618	12-30-1997	Saaski et al.	
	A58	US-5,705,018	01-06-1998	Hartley	
	A59	US-5,716,852	02-10-1998	Yager et al.	
	A60	US-5,726,751	03-10-1998	Altendorf et al.	
	A61	US-5,750,015	05-12-1998	Soane et al.	
	A62	US-5,757,482	05-26-1998	Fuchs et al.	
	A63	US-5,759,014	06-02-1998	Van Lintel	
	A64	US-5,775,371	07-07-1998	Pan et al.	
	A65	US-5,788,468	08-04-1998	Dewa et al.	
	A66	US-5,800,690	09-01-1998	Chow et al.	
	A67	US-5,833,926	11-10-1998	Wurzel et al.	
	A68	US-5,836,750	11-17-1998	Cabuz	
	A69	US-5,837,200	11-17-1998	Diessel et al.	
	A70	US-5,842,787	12-01-1998	Kopf-Sill et al.	
	A71	US-5,852,495	12-22-1998	Parce	
	A72	US-5,856,174	01-05-1999	Lipshutz et al..	

Examiner Signature	Date Considered
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Substitute for form 1449A/PTO			<i>Complete if Known</i>		
INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>			Application Number	09/800,435	
Sheet	4	of	15	Filing Date	March 5, 2001
				First Named Inventor	Stephen R. Quake
				Art Unit	1631
				Examiner Name	Channing Mahatan
				Attorney Docket Number	20174C-012300US

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number Number Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	A73	US-5,863,502	01-26-1999	Southgate et al.	
	A74	US-5,863,801	01-26-1999	Southgate et al.	
	A75	US-5,869,004	02-09-1999	Parce et al.	
	A76	US-5,875,817	03-02-1999	Carter	
	A77	US-5,876,187	03-02-1999	Afromowitz	
	A78	US-5,880,071	03-09-1999	Parce et al.	
	A79	US-5,904,824	05-18-1999	Oh	
	A80	US-5,932,799	08-03-1999	Moles	
	A81	US-5,942,443	08-24-1999	Parce et al.	
	A82	US-6,007,309	12-28-1999	Hartley	
	A83	US-6,043,080	03-28-2000	Lipshutz et al.	
	A84	US-6,117,634	09-12-2000	Langmore et al.	
	A85	US-6,123,769	09-26-2000	Sanjoh	
	A86	US-6,155,282	12-05-2000	Zachary et al.	
	A87	US-6,174,365 B1	01-16-2001	Sanjoh	
	A88	US-6,221,654 B1	04-24-2001	Quake et al.	
	A89	US-6,296,673 B1	10-02-2001	Santarsiero et al.	
	A90	US-2001-0027745 A1	10-11-2001	Weigl et al.	
	A91	US-2001-0029983 A1	10-18-2001	Unger et al.	
	A92	US-2001-0041357 A1	11-15-2001	Fouillet et al.	
	A93	US-6,345,502 B1	02-12-2002	Tai et al.	
	A94	US-2002-0037499 A1	03-28-2002	Quake et al.	
	A95	US-6,409,832 B2	06-25-2002	Weigl et al.	
	A96	US-6,540,895 B2	04-01-2003	Quake et al.	

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Substitute for form 1449A/PTO				<i>Complete if Known</i>	
				Application Number	09/800,435
				Filing Date	March 5, 2001
				First Named Inventor	Stephen R. Quake
				Art Unit	1631
				Examiner Name	Channing Mahatan
Sheet	5	of	15	Attorney Docket Number	20174C-012300US

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number Number Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	A97	US-2004-0115838 A1	06-17-2004	Quake et al.	
	A98	US-6,767,706 B2	07-27-2004	Quake et al.	
	A99	US-2004-0248167 A1	12-09-2004	Quake et al.	
	A100	US-6,833,242 B2	12-21-2004	Quake et al.	
	A101	US-2005-0123947 A1	06-09-2005	Quake et al.	
	A102	US-6,977,145 B2	12-20-2005	Fouillet et al.	

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Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>				Complete if Known				
				Application Number		09/800,435		
				Filing Date		March 5, 2001		
				First Named Inventor		Stephen R. Quake		
				Art Unit		1631		
				Examiner Name		Channing Mahatan		
Sheet	6	of	15	Attorney Docket Number				20174C-012300US

FOREIGN PATENT DOCUMENTS							
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		Country Code ³	Number ⁴	Kind Code ⁵ (if known)			
	B1	EP	0 592 094	A2	04-13-1994	International Business Machines Corporation	<input type="checkbox"/>
	B2	EP	0 703 364	A1	03-27-1996	Fraunhofer-Gesellschaft Zur Förderung Der Angewandten Forschung E.V.	<input type="checkbox"/>
	B3	EP	0 706 004	A2	04-10-1996	Bayer Corporation	<input type="checkbox"/>
	B4	EP	0 745 682	B1	12-04-1996	Bayer AG	<input type="checkbox"/>
	B5	EP	0 778 351	B1	06-11-1997	Hitachi, Ltd.	<input type="checkbox"/>
	B6	EP	0 779 436	A2	06-18-1997	Frank T. Hartley	<input type="checkbox"/>
	B7	EP	0 829 360	A2	03-18-1998	Xerox Corporation	<input type="checkbox"/>
	B8	EP	0 845 603	A1	06-03-1998	Xerox Corporation	<input type="checkbox"/>
	B9	EP	0 999 055	A2	05-10-2000	Samsung Electronics Co., Ltd.	<input type="checkbox"/>
	B10	GB	2 155 152	A	09-18-1985	Allied Corporation	<input type="checkbox"/>
	B11	GB	2 264 296	A	08-25-1993	Zortech International Limited	<input type="checkbox"/>
	B12	GB	2 264 496	A	09-01-1993	United States Department of Energy	<input type="checkbox"/>
	B13	GB	2 308 460	A	06-25-1997	Daewoo Electronics Co., Ltd.	<input type="checkbox"/>
	B14	WO	91/13338	A2	09-05-1991	Hatfield Polytechnic Higher Education Corporation	<input type="checkbox"/>
	B15	WO	91/15750	A1	10-17-1991	Carrimed Ltd.	<input type="checkbox"/>
	B16	WO	94/05414	A1	03-17-1994	WO	<input type="checkbox"/>
	B17	WO	95/33846	A1	12-14-1995	Affymax Technologies N.V.	<input type="checkbox"/>

Examiner Signature	Date Considered
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Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>				Complete if Known	
Sheet	7	of	15	Application Number	09/800,435
				Filing Date	March 5, 2001
				First Named Inventor	Stephen R. Quake
				Art Unit	1631
				Examiner Name	Channing Mahatan
				Attorney Docket Number	20174C-012300US

FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No. ¹	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³	Number ⁴	Kind Code ⁵ (if known)				
	B18	WO	95/33853	A1	12-14-1995	University of Tennessee Research Corporation		<input type="checkbox"/>
	B19	WO	97/02357	A1	01-23-1997	Affymetrix, Inc.		<input type="checkbox"/>
	B20	WO	97/38300	A1	10-16-1997	Soane Biosciences		<input type="checkbox"/>
	B21	WO	98/07069	A1	02-19-1998	The Regents Of The University Of Michigan		<input type="checkbox"/>
	B22	WO	98/08931	A1	03-05-1998	BTG USA Inc.		<input type="checkbox"/>
	B23	WO	99/00655	A2	01-07-1999	Immunetics		<input type="checkbox"/>
	B24	WO	99/04361	A1	01-28-1999	Diversified Scientific, Inc.		<input type="checkbox"/>
	B25	WO	99/17093	A1	04-08-1999	The Regents Of The University Of Michigan		<input type="checkbox"/>
	B26	WO	99/52633	A1	10-21-1999	Lumenal Technologies, L.P.		<input type="checkbox"/>
	B27	WO	00/00678	A1	01-06-2000	University Of Washington		<input type="checkbox"/>
	B28	WO	00/43748	A1	07-27-2000	YSI Incorporated		<input type="checkbox"/>
	B29	WO	00/60345	A1	10-12-2000	University Of Alabama At Birmingham Research Foundation		<input type="checkbox"/>
	B30	WO	01/09595	A2/A3	02-08-2001	Emerald Biostructures, Inc.		<input type="checkbox"/>

Examiner Signature		Date Considered	
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	C1	AFFHOLTER, JOSEPH et al., "Engineering A Revolution," Chemistry in Britain, pp. 48-51, April 1999		
	C2	AWN, CHONG H. et al., "Fluid Micropumps Based On Rotary Magnetic Actuators," Proceedings of 1995 IEEE Micro Electro Mechanical Systems Workshop (MEMS '95), Amsterdam, Netherlands, pp. 408-412, January 29 - February 2, 1995		
	C3	ARNOLD, FRANCES H., "Design By Directed Evolution," Accounts of Chemical Research, Vol. 31, No. 3, pp. 125-131, 1998		
	C4	ASHKIN, A. et al., "Optical Trapping And Manipulation Of Single Cells Using Infrared Laser Beams," Nature, Vol. 330, No. 24, pp. 769-771, December 31, 1987		
	C5	ASHKIN, A. et al., "Optical Trapping And Manipulation Of Viruses And Bacteria," Science, Vol. 235, pp. 1517-1520, March 20, 1987		
	C6	BEIN, THOMAS, "Efficient Assays For Combinatorial Methods For The Discovery Of Catalysts," Angew. Chem. Int. Ed., Vol. 38, No. 3, pp. 323-326, 1999		
	C7	BELGRADER, PHILLIP et al., "Rapid Pathogen Detection Using A Microchip PCR Array Instrument," Clinical Chemistry, Vol. 44, No. 10, pp. 2191-2194, 1998		
	C8	BENARD, W. L. et al., "A Titanium-Nickel Shape-Memory Alloy Actuated Micropump," Transducers '97, 1997 International Conference on Solid-State Sensors and Actuators, Chicago, Illinois, pp. 361-364, June 16-19, 1997		
	C9	BRECHTEL, R. et al., "Control Of The Electroosmotic Flow By Metal-Salt-Containing Buffers," Journal of Chromatography A, Vol. 716, pp. 97-105, 1995		
	C10	BRUSH, MICHAEL, "Automated Laboratories," The Scientist, Vol. 13, No. 4, 10 pages, February 15, 1999		
	C11	BRYZEK, JANUSZ et al., "Micromachines On The March", IEEE Spectrum, Vol. 31, No. 5, pp. 20-31, May 1994		
	C12	BUCHAILLOT, LIONEL et al., "Silicon Nitride Thin Films Young's Modulus Determination By An Optical Non Destructive Method," Jpn. J. Appl. Phys., Vol. 36, Part 2, No. 6B, pp. L794-L797, June 15, 1997		
	C13	BUDOWLE, BRUCE et al., "Analysis Of The VNTR Locus DIS80 By The PCR Followed By High-Resolution PAGE," Am. J. Hum. Genet., Vol. 48, pp. 137-144, 1991		
	C14	BUICAN, TUDOR N. et al., "Automated Single-Cell Manipulation And Sorting By Light Trapping," Applied Optics, Vol. 26, No. 24, pp. 5311-5316, December 15, 1987		
	C15	BURBAUM, JONATHAN J. et al., "New Technologies For High-Throughput Screening," Current Opinion in Chemical Biology, Vol. 1, pp. 72-78, 1997		

Examiner Signature		Date Considered
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	C16	CAI, WEIWEN, et al., "High-Resolution Restriction Maps Of Bacterial Artificial Chromosomes Constructed By Optical Mapping," Proc. Natl. Acad. Sci. USA, Vol. 95, pp. 3390-3395, March 1998			
	C17	CHIU, CHI-SUNG et al., "Single Molecule Measurements Calibrate Green Fluorescent Protein Surface Densities On Transparent Beads For Use With 'Knock-In' Animals And Other Expression Systems," Journal of Neuroscience Methods, Vol. 105, pp. 55-63, 2001			
	C18	CHIU, DANIEL T. et al., "Patterned Deposition Of Cells And Proteins Onto Surfaces By Using Three-Dimensional Microfluidic Systems," PNAS, Vol. 97, No. 6, pp. 2408-2413, March 14, 2000			
	C19	CHOU, HOU-PU et al., "A Microfabricated Device For Sizing And Sorting DNA Molecules," Proc. Natl. Acad. Sci., Vol. 96, pp. 11-13, January 1999			
	C20	CHOU, HOU-PU, "Microfabricated Devices For Rapid DNA Diagnostics," Doctoral Thesis, California Institute of Technology, pp. i-xii and 1-106, May 30, 2000			
	C21	CROSLAND-TAYLOR, P. J., "A Device For Counting Small Particles Suspended In A Fluid Through A Tube," Nature, Vol. 171, pp. 37-38, January 3, 1953			
	C22	DAVILA, HERMAN MORENO, "Molecular And Functional Diversity Of Voltage-Gated Calcium Channels," Annals of the New York Academy of Sciences, Vol. 868, pp. cover, 102-117, 1999			
	C23	DELAMARCHE, EMMANUEL et al., "Patterned Delivery Of Immunoglobulins To Surfaces Using Microfluidic Networks," Science, Vol. 276, pp. 779-781, May 2, 1997			
	C24	DUFFY, DAVID C. et al., "Patterning Electroluminescent Materials With Feature Sizes As Small As 5µm Using Elastomeric Membranes As Masks For Dry Lift-Off," Advanced Materials, Vol. 11, No. 7, pp. 546-552, 1999			
	C25	DUFFY, DAVID C. et al., "Rapid Prototyping Of Microfluidic Switches In Poly(dimethyl siloxane) And Their Actuation By Electro-Osmotic Flow," J. Micromech. Microeng., Vol. 9, pp. 211-217, 1999			
	C26	DUFFY, DAVID C. et al., "Rapid Prototyping Of Microfluidic Systems In Poly(dimethylsiloxane)," Analytical Chemistry, Vol. 70, No. 23, pp. 4974-4984, December 1, 1998			
	C27	EFFENHAUSER, CARLO S. et al., "Integrated Capillary Electrophoresis On Flexible Silicone Microdevices: Analysis Of DNA Restriction Fragments And Detection Of Single DNA Molecules On Microchips," Analytical Chemistry, Vol. 69, No. 17, pp. 3451-3457, September 1, 1997			
	C28	EFFENHAUSER, CARLO S. et al., "Integrated Chip-Based Capillary Electrophoresis," Electrophoresis, Vol. 18, pp. 2203-2213, 1997			
	C29	FAHRENBERG, J. et al., "A Microvalve System Fabricated By Thermoplastic Molding," J. Micromech. Microeng., Vol. 5, pp. 169-171, 1995			
	C30	FETTINGER, J. C. et al., "Stacked Modules For Micro Flow Systems In Chemical Analysis: Concept And Studies Using An Enlarged Model," Sensors and Actuators B, Vol. 17, pp. 19-25, 1993			
	C31	FU, ANNE Y. et al., "A Microfabricated Fluorescence-Activated Cell-Sorter," Nature Biotechnology, Vol. 17, pp. 1109-1111, November 1999			

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	C32	GAASS, V. et al., "Integrated Flow-Regulated Silicon Micropump," Sensors and Actuators A, Vol. 43, pp. 335-338, 1994		T ²
	C33	GERLACH, TORSTEN, "Pumping Gases By A Silicon Micro Pump With Dynamic Passive Valves," Transducers '97, 1997 International Conference on Solid-State Sensors and Actuators, Chicago, Illinois, pp. 357-360, June 16-19, 1997		
	C34	GIUSTI, ALAN et al., "Application Of Deoxyribonucleic Acid (DNA) Polymorphisms To The Analysis Of DNA Recovered From Sperm," Journal of Forensic Sciences, Vol. 31, No. 2, pp. 409-417, April 1986		
	C35	GOLL, C. et al., "Microvalves With Bistable Buckled Polymer Diaphragms," J. Micromech. Microeng., Vol. 6, pp. 77-79, 1996		
	C36	GONZALEZ, JESUS E. et al., "Improved Indicators Of Cell Membrane Potential That Use Fluorescence Resonance Energy Transfer," Chemistry & Biology, Vol. 4, No. 4, pp. 269-277, April 1997		
	C37	GRAVESEN, PETER et al., "Microfluidics-A Review," J. Micromech. Microeng., Vol. 3, pp. 168-192, 1993		
	C38	HANES, JOZEF, et al., "In Vitro Selection And Evolution Of Functional Proteins By Using Ribosome Display," Proc. Natl. Acad. Sci. USA, Vol. 94, pp. 4937-4942, May 1997		
	C39	HARRISON, D. JED et al., "Micromachining A Miniaturized Capillary Electrophoresis-Based Chemical Analysis System On A Chip," Science, Vol. 261, pp. 895-897, August 13, 1993		
	C40	HERMANSON, Greg T. et al., "Chapter 2 - Activation Methods," Immobilized Affinity Ligand Techniques, Academic Press, pp. 2 cover pages, 51-136, 1992		
	C41	HOFFMULLER, ULRICH et al., "In Vitro Evolution And Selection Of Proteins: Ribosome Display For Larger Libraries," Angew. Chem. Int. Ed., Vol. 37, No. 23, pp. 3241-3243, 1998		
	C42	HORNBECK, LARRY J. et al., "Bistable Deformable Mirror Device," Spatial Light Modulators and Applications 1988 Technical Digest Series, Vol. 8, Postconference Edition, pp. cover, 107-110, June 15-17, 1988		
	C43	HOSOKAWA, KAZUO et al., "Handling Of Picoliter Liquid Samples In A Poly(dimethylsiloxane)-Based Microfluidic Device," Analytical Chemistry, Vol. 71, No. 20, pp. 4781-4785, October 15, 1999		
	C44	IKUTA, KOJI et al., "Three Dimensional Micro Integrated Fluid Systems (MIFS) Fabricated By Stereo Lithography," IEEE, pp. 1-6, 1994		
	C45	JACOBSON, KEN et al., "International Workshop On The Application Of Fluorescence Photobleaching Techniques To Problems In Cell Biology," Federation Proceedings, Vol. 42, No. 1, pp. 72-79, January 1983		
	C46	JACOBSON, STEPHEN C. et al., "High-Speed Separations On A Microchip," Analytical Chemistry, Vol. 66, No. 7, pp. 1114-1118, April 1, 1994		

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	C47	JACOBSON, STEPHEN C. et al., "Microfluidic Devices For Electrokinetically Driven Parallel And Serial Mixing," Analytical Chemistry, Vol. 71, No. 20, pp. 4455-4459, October 15, 1999		T ²
	C48	JEFFREYS, ALEC J. et al., "Hypervariable 'Minisatellite' Regions In Human DNA," Nature, Vol. 314, pp. 67-73, March 7, 1985		
	C49	JERMAN, HAL, "Electrically-Activated, Normally-Closed Diaphragm Valves," Transducers '91, 1991 International Conference on Solid-State Sensors and Actuators, pp. cover, 1045-1048, 1991		
	C50	JERMUTUS, LUTZ, et al., "Recent Advances In Producing And Selecting Functional Proteins By Using Cell-Free Translation," Current Opinion in Biotechnology, Vol. 9, pp. 534-548, 1998		
	C51	JU, LI-YA et al., "Application Of Silver Staining To The Rapid Typing Of The Polymorphism Of HLA-DQ Alleles By Enzymatic Amplification and Allele-Specific Restriction Fragment Length Polymorphism," Electrophoresis, Vol. 12, pp. 270-273, 1991		
	C52	JUNG, D. R. et al., "Chemical And Physical Interactions At Metal/Self-Assembled Organic Monolayer Interfaces," pp. 1-54, 1994.		
	C53	KANTER, EVAN et al., "Analysis Of Restriction Fragment Length Polymorphisms In Deoxyribonucleic Acid (DNA) Recovered From Dried Bloodstains," Journal of Forensic Sciences, Vol. 31, No. 2, pp. 403-408, April 1986		
	C54	KELLER, RICHARD A. et al., "Single-Molecule Fluorescence Analysis In Solution," Applied Spectroscopy, Vol. 50, No. 7, pp. 12A-30A, July 1996		
	C55	KENIS, PAUL J. A. et al., "Microfabrication Inside Capillaries Using Multiphase Laminar Flow Patterning," Science, Vol. 285, pp. 83-85, July 2, 1999		
	C56	KIM, ENOCH et al., "Micromolding In Capillaries: Applications In Materials Science," J. Am. Chem. Soc., Vol. 118, No. 24, pp. 5722-5731, 1996		
	C57	KOPP, MARTIN U. et al., "Chemical Amplification: Continuous-Flow PCR On A Chip," Science, Vol. 280, pp. 1046-1048, May 15, 1998		
	C58	KUHN, LAWRENCE et al., "Silicon Charge Electrode Array For Ink Jet Printing," IEEE Transactions on Electron Devices, Vol. ED-25, No. 10, pp. 1257-1260, October 1978		
	C59	LESSARD, GUILLAUME A. et al., "A Scanning Apertureless Fluorescence Microscope," 8 pages, no date		
	C60	LEVINE, LEANNA M. et al., "Measurement Of Specific Protease Activity Utilizing Fluorescence Polarization," Analytical Biochemistry, Vol. 247, pp. 83-88, 1997		
	C61	LIN, L. Y. et al., "Free-Space Micromachined Optical Switches For Optical Networking," IEEE Journal of Selected Topics in Quantum Electronics, Vol. 5, No. 1, pp. 4-9, January 1999		

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	C62	LLOPIS, JUAN et al., "Ligand-Dependent Interactions Of Coactivators Steroid Receptor Coactivator-1 And Peroxisome Proliferator-Activated Receptor Binding Protein With Nuclear Hormone Receptors Can Be Imaged In Live Cells And Are Required For Transcription," PNAS, Vol. 97, No. 8, pp. 4363-4368, April 11, 2000		T ²
	C63	LÖTTERS, J C et al., "The Mechanical Properties Of The Rubber Elastic Polymer Polydimethylsiloxane For Sensor Applications," J. Micromech. Microeng., Vol. 7, pp. 145-147, 1997		
	C64	LUCY, CHARLES A. et al., "Characterization Of The Cationic Surfactant Induced Reversal Of Electroosmotic Flow In Capillary Electrophoresis," Anal. Chem., Vol. 68, pp. 300-305, 1996		
	C65	MAHAJAN, NUPAM P. et al., "Novel Mutant Green Fluorescent Protein Protease Substrates Reveal The Activation Of Specific Caspases During Apoptosis," Chemistry & Biology, Vol. 6, No. 6, pp. 401-409, June 1999		
	C66	MALUF, N., "An Introduction To Microelectromechanical Systems Engineering," Artech House Publishers, Boston London, pp. 42-45, December 1999		
	C67	MOLDAVAN, ANDREW, "Photo-Electric Technique For The Counting Of Microscopical Cells," Science, Vol. 80, No. 2069, pp. 188-189, August 24, 1934		
	C68	MULLER, RICHARD S. et al., "Surface-Micromachined Microoptical Elements And Systems," Proceedings of the IEEE, Vol. 86, No. 8, pp. 1705-1720, August 1998		
	C69	MURRAY, VINCENT et al., "Detection Of Polymorphisms Using Thermal Cycling With A Single Oligonucleotide On A DNA Sequencing Gel," Human Mutation, Vol. 2, pp. 118-122, 1993		
	C70	NAGAI, YASUO et al., "A Fluorescent Indicator For Visualizing cAMP-Induced Phosphorylation In Vivo," Nature Biotechnology, Vol. 18, pp. 313-316, March 2000		
	C71	NAKAMURA, YUSUKE et al., "Variable Number Of Tandem Repeat (VNTR) Markers For Human Gene Mapping," Science, Vol. 235, pp. 1616-1622, March 27, 1987		
	C72	OLSSON, ANDERS et al., "Simulation Studies Of Diffuser And Nozzle Elements For Valve-Less Micropumps," Transducers '97, 1997 International Conference on Solid-State Sensors and Actuators, Chicago, Illinois, pp. 1039-1042, June 16-19, 1997		
	C73	PARKER, GREGORY J. et al., "Development Of High Throughput Screening Assays Using Fluorescence Polarization: Nuclear Receptor-Ligand-Binding And Kinase/Phosphatase Assays," Journal of Biomolecular Screening, Vol. 5, No. 2, pp. 77-88, 2000		
	C74	PETHIG, RONALD et al., "Applications Of Dielectrophoresis In Biotechnology," Tibtech, Vol. 15, pp. 426-432, October 1997		
	C75	QIN, DONG et al., "Elastomeric Light Valves," Adv. Mater., Vol. 9, No. 5, pp. 407-410, 1997		
	C76	QIN, DONG et al., "Photolithography With Transparent Reflective Photomasks," J. Vac. Sci. Technol. B, Vol. 16, No. 1, pp. 98-103, January 1998		

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	C77	QUAKE, STEPHEN R. et al., "From Micro- To Nanofabrication With Soft Materials," Science, Vol. 290, pp. 1536-1540, November 24, 2000		T ²
	C78	RAPP, R. et al., "LIGA Micropump For Gases And Liquids," Sensors and Actuators A, Vol. 40, pp. 57-61, January 1994		
	C79	ROBERTS, RICHARD W. et al., "RNA-Peptide Fusions For The <i>In Vitro</i> Selection Of Peptides And Proteins," Proc. Natl. Acad. Sci. USA, Vol. 94, pp. 12297-12302, November 1997		
	C80	ROUHI, MAUREEN, "Sizing, Sorting DNA One Piece At A Time," C&EN, pp. 5-6, January 11, 1999		
	C81	ROYLANCE, LYNN MICHELLE et al., "A Batch-Fabricated Silicon Accelerometer," IEEE Transactions on Electron Devices, Vol. ED-26, No. 12, pp. 1911-1917, December 1979		
	C82	SAMAD, AKHTAR et al., "Optical Mapping: A Novel, Single-Molecule Approach To Genomic Analysis," Genome Research, pp. 1-4, 1995		
	C83	SCHASFOORT, RICHARD B. M. et al., "Field-Effect Flow Control For Microfabricated Fluidic Networks," Science, Vol. 286, pp. 942-945, October 29, 1999		
	C84	SCHUELLER, OLIVIER J. A. et al., "Fabrication Of Glassy Carbon Microstructures By Soft Lithography," Sensors and Actuators A, Vol. 72, pp. 126-139, 1999		
	C85	SCHULLEK, JOHN R., "A High-Density Screening Format For Encoded Combinatorial Libraries: Assay Miniaturization And Its Application To Enzymatic Reactions," Analytical Biochemistry, Vol. 246, pp. 20-29, 1997		
	C86	SCHWARTZ, DAVID C. et al., "Optical Mapping Approaches To Molecular Genomics," Current Opinion in Biotechnology, Vol. 8, pp. 70-74, 1997		
	C87	SEETHALA, RAMAKRISHNA et al., "A Fluorescence Polarization Competition Immunoassay For Tyrosine Kinases," Analytical Biochemistry, Vol. 255, pp. 257-262, 1998		
	C88	SHOJI, SHUICHI, "Fluids For Sensor Systems," Topics in Current Chemistry, Vol. 194, pp. 163-188, 1998		
	C89	SHOJI, SHUICHI et al., "Smallest Dead Volume Microvalves For Integrated Chemical Analyzing Systems," Transducers '91, 1991 International Conference on Solid-State Sensors and Actuators, San Francisco, California, pp. cover, 1052-1055, 1991		
	C90	SMITS, J.G., "Piezoelectric Micropump With Three Valves Working Peristaltically," Sensors and Actuators, Vol. A21-A23, pp. 203-206, 1990		
	C91	SOHN, L. L. et al., "Capacitance Cytometry: Measuring Biological Cells One By One," PNAS, Vol. 97, No. 20, pp. 10687-10690, September 26, 2000		
	C92	TAKAHASHI, AKIYUKI et al., "Measurement Of Intracellular Calcium," Physiological Reviews, Vol. 79, No. 4, pp. 1089-1125, October 1999		

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--------------------	-----------------

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	C93	TATARI, ZOHREH et al., "HLA-Cw Allele Analysis By PCR-Restriction Fragment Length Polymorphism: Study Of Known And Additional Alleles," Proc. Natl. Acad. Sci. USA, Vol. 92, pp. 8803-8807, September 1995		T ²
	C94	TAWFIK, DAN S. et al., "Man-Made Cell-Like Compartments For Molecular Evolution," Nature Biotechnology, Vol. 16, pp. 652-656, July 1998		
	C95	TUFTE, O. N. et al., "Silicon Diffused-Element Piezoresistive Diaphragms," Journal of Applied Physics, Vol. 33, No. 11, pp. 3322-3327, November 1962		
	C96	Ullmann's Encyclopedia of Industrial Chemistry, Sections 6 to 6.3, Topic: Carbon Black, Sixth Edition, 7 pages, 1999		
	C97	UNGER, MARC A. et al., "Monolithic Microfabricated Valves And Pumps By Multilayer Soft Lithography," Science, Vol. 288, pp. 113-116, April 7, 2000		
	C98	UNGER, MARC A. et al., "Single-Molecule Fluorescence Observed With Mercury Lamp Illumination," Biotechniques, Vol. 27, No. 5, pp. 1008-1014, November 1999		
	C99	VAN DE POL, F.C.M. et al., "A Thermo-Pneumatic Actuation Principle For A Microminiature Pump And Other Micromechanical Devices," Sensors and Actuators, Vol. 17, Nos. 1-2, pp. 139-143, May 3, 1989		
	C100	VAN DE POL, F.C.M. et al., "Micro Liquid Handling Devices - A Review," Micro Systems Technologies, Vol. 90, pp. 799-805, 1990		
	C101	VAN DILLA, M. A. et al., "Cell Microfluorometry: A Method For Rapid Fluorescence Measurement," Science, Vol. 163, pp. 1213-1214, March 14, 1969		
	C102	VIEIDER, CHRISTIAN et al., "A Pneumatically Actuated Micro Valve With A Silicon Rubber Membrane For Integration With Fluid Handling Systems," Transducers '95, 8th International Conference on Solid-State Sensors and Actuators and Eurosensors IX, Stockholm, Sweden, pp. 284-286, June 25-29, 1995		
	C103	VOGELSTEIN, BERT et al., "Digital PCR," Proc. Natl. Acad. Sci. USA, Vol. 96, pp. 9236-9241, August 1999		
	C104	WASHIZU, MASAO et al., "Molecular Dielectrophoresis Of Biopolymers," IEEE Transactions on Industry Applications, Vol. 30, No. 4, pp. 835-843, July 1994		
	C105	WHELEN, A. CHRISTIAN et al., "The Role Of Nucleic Acid Amplification And Detection In The Clinical Microbiology Laboratory," Annu. Rev. Microbiol., Vol. 50, pp. 349-373, 1996		
	C106	XIA, YOUNAN et al., "Complex Optical Surfaces Formed By Replica Molding Against Elastomeric Masters," Science, Vol. 273, pp. 347-349, July 19, 1996		
	C107	XIA, YOUNAN et al., "Micromolding Of Polymers In Capillaries: Applications In Microfabrication," Chem. Mater., Vol. 8, No. 7, pp. 1559-1566, 1996		

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NON PATENT LITERATURE DOCUMENTS				
Examiner Initials	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.		
	C108	XIA, YOUNAN et al., "Soft Lithography," Angew. Chem. Int. Ed., Vol. 37, pp. 551-575, 1998		T ²
	C109	XU, XIANG et al., "Detection Of Programmed Cell Death Using Fluorescence Energy Transfer," Nucleic Acids Research, Vol. 26, No. 8, pp. 2034-2035, 1998		
	C110	YANG, T. J. et al., "An Apertureless Near-Field Microscope For Fluorescence Imaging," Applied Physics Letters, Vol. 76, No. 3, pp. 378-380, January 17, 2000		
	C111	YANG, XING et al., "A Low Power MEMS Silicone/Parylene Valve," Solid-State Sensor and Actuator Workshop, Hilton Head Island, South Carolina, 4 pages, June 7-11, 1998		
	C112	YANG, XING et al., "A MEMS Thermopneumatic Silicone Membrane Valve," IEEE 10th Annual International Workshop of Micro Electro Mechanical Systems, Nagoya, Japan, pp. cover, 114-118, January 26-30, 1997		
	C113	YAZDI, NAVID et al., "Micromachined Inertial Sensors," Proceedings of IEEE, Vol. 86, No. 8, pp. 1640-1659, August 1998		
	C114	YOUNG, A. M. et al., "Contoured Elastic-Membrane Microvalves For Microfluidic Network Integration," Journal of Biomechanical Engineering, Vol. 121, pp. 2-6, February 1999		
	C115	ZACCOLO, MANUELA et al., "A Genetically Encoded, Fluorescent Indicator For Cyclic AMP In Living Cells," Nature Cell Biology, Vol. 2, pp. 25-29, January 2000		
	C116	ZENGERLE, R. et al., "A Micro Membrane Pump With Electrostatic Actuation," Micro Electro Mechanical Systems '92, Travemünde, Germany, pp. 19-24, February 4-7, 1992		
	C117	ZENGERLE, R. et al., "Performance Simulation Of Microminiaturized Membrane Pumps," 7th International Conference on Solid-State Sensors and Actuators, Yokohama, Japan, pp. 2 cover pages, 106-109, June 7-10, 1993		

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